IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

BEARBOX LLC and AUSTIN STORMS, Plaintiffs, v. LANCIUM LLC, MICHAEL T. MCNAMARA, and RAYMOND E. CLINE, JR., Defendants.	C.A. No. 21-534-GBW-CJB

PLAINTIFFS' REPLY POST-TRIAL BRIEF

Of Counsel:

Benjamin T. Horton
John R. Labbe
Raymond R. Ricordati, III
John J. Lucas
Chelsea M. Murray
MARSHALL, GERSTEIN & BORUN LLP
233 S. Wacker Drive
6300 Willis Tower
Chicago, IL 60606
(312) 474-6300

Date: February 1, 2023

ASHBY & GEDDES
Andrew C. Mayo (#5207)
500 Delaware Avenue, 8th Floor
P.O. Box 1150
Wilmington, DE 19899
(302) 654-1888
amayo@ashbygeddes.com

Attorneys for Plaintiffs
BearBox LLC and Austin Storms

{01878666;v1 }

TABLE OF CONTENTS

TABLE OF AUTHORITIES

TABLE OF ABBREVIATIONS

Abbreviation	Description
Patent or '433 Patent	U.S. Patent No. 10,608,433
PF	Plaintiff's Proposed Findings of Fact
Storms	Mr. Austin Storms
McClellan	Dr. Stan McClellan
McNamara	Mr. Michael McNamara
Cline	Dr. Raymond Cline
POA	"power option agreement"
MPT	"minimum power threshold"
Diagram	TX157.0003
Spec Sheet	TX157.0002
Data File	TX157.0008-0025
DR	Defendants' Response Post-Trial Brief (D.I. 258)
DF	Defendants' Proposed Findings of Fact (D.I. 259)

I.   Introduction

Storms conceived of and developed a software-based system that would give a windfarm operator (a type of "power entity" according to the '433 Patent) the option of selling power to a Bitcoin miner or selling power to the grid. Using this software, the windfarm operator would supply electricity to the Bitcoin miner when it made economic sense to do so, but would have the option to divert electricity from the miner to sell at the "locational marginal price" on the electricity grid. This system, illustrated in the annotated diagram displayed throughout trial, is what Lancium claimed in the '433 Patent.

McNamara and Cline's purported independent conception—which they concede came months after Storms' disclosures—is evidence only of their efforts to commercialize one embodiment of Storms' inventions in the context of ERCOT ancillary services. The inventions claimed in the patent are broader, and McNamara and Cline could not "independently" conceive of those inventions after Storms communicated those inventions to them.

The '433 Patent claims say nothing about ancillary services, grid stabilization, or demand response. Lancium is, therefore, wrong to suggest that the system that Storms conceived and communicated to McNamara and Cline is something different than what is claimed in the patent. Lancium's use of the terms "power option agreement" and "minimum power threshold" in the patent claims are just words Lancium chose to describe an unremarkable, decades-old contractual arrangement between a load and a power entity. "Minimum power thresholds" are the logical consequence of this arrangement; a load must use the power it contracts to purchase, subject to curtailment by the power entity. If the power is not being used, there is no option because there is no curtailment. These are known, conventional elements falling within the scope of the system Storms communicated to McNamara and Cline. Lancium's efforts to implement commercial uses of the claimed inventions is not evidence of conception. It is evidence of

commercialization. To determine inventorship, the Court need not consider how Lancium

commercialized the inventions, only that Storms conceived of and communicated the inventions

claimed in the patent.[1]

II.   Lancium does not dispute that Storms communicated 5 of the 6 elements in the independent claims of the '433 Patent

Lancium admits Storms communicated element [a], "a set of computing systems." DR at

9. Lancium does not dispute Storms disclosed elements [b] and [b1], "a control system" and

"monitoring a set of conditions." DR at 10. In addition, Lancium does not dispute that Storms'

disclosed elements [b3], "determine a performance strategy…" and [b4], "providing instructions

based on [] performance strategy," arguing only that Storms did not disclose to Lancium element

[b2], "receiving power option data…" And, on that basis, Lancium argues Storms could not

disclose elements [b3] and [b4] because they "build upon" element [b2]. DR at 10-13. Lancium's

argument for elements [b3] and [b4] is flawed for two reasons. First, Storms *did* disclose element

[b2], as discussed further below. Second, elements [b3] and [b4] do not exclusively "build upon"

element [b2], therefore Storms' disclosure of elements [b3] and [b4] cannot be disqualified on

that basis.

Element [b2] recites "receive power option data based, *at least in part*, on a power option

agreement." Power option data, as claimed, includes MPTs and time intervals, wherein each

MPT corresponds to a time interval. Both MPTs and time intervals may all have the same value

(e.g., 5 minutes or 31 kW), and MPTs may be zero (as long as not all are zero). D.I. 218.

According to the claims, power option data may be based only *in part* on a POA, meaning power

---

[1] Lancium's suggestion that Storms comes to Court with unclean hands lacks support because there is no evidence of improper behavior in connection with this matter (or any other matter). Further, Lancium did not include an unclean hands affirmative defense in the Pretrial Order. D.I. 239.

option data may, in part, *not* be based on a POA. Lancium does not contest that Storms'

disclosure included 5-minute intervals and power usage of 373 kW/hour, in increments of 1.3

kW/hour (272 miners, each operating at about 1.3kW/hour). PF 17, 37. But it is improper to

interpret the claims in a way that renders limitations meaningless. *Absolute Software, Inc. v.*

Stealth Signal, Inc., 659 F.3d 1121, 1141 (Fed. Cir. 2011). Lancium's interpretation would

render the "at least in part" claim language meaningless; such an interpretation cannot be the

correct one. *RightQuestion, LLC v. Samsung Elecs. Co.*, 2022 WL 1154611, at *6 (E.D. Tex.

Apr. 18, 2022) (rejecting claim interpretation that would "render meaningless" the limitation

"based at least in part on"). Therefore, Lancium argument that Storms did not communicate

elements [b3] and [b4] if he did not communicate [b2] should be rejected.

More importantly, Storms *did* disclose [b2].

III.   Storms disclosed element [b2], which is based on a known contractual arrangement between a power entity and a load

Element [b2] recites receiving power option data based, at least in part, on a POA. Power

option data specifies MPTs and time intervals. The Court construed POA and MPT as follows:

"power option agreement"	"an agreement between a power entity associated with the delivery of power to a load and the load, wherein the load provides the power entity with the option to reduce the amount of power delivered to the load up to an agreed amount of power during an agreed upon time interval such that the load must use at least the amount of power subject to the option during the time interval unless the power entity exercises the option"
"minimum power threshold"	"a minimum amount of power a load must use during an associated time interval"

Lancium sought these constructions after the close of discovery in its summary judgment

motion, arguing that these constructions called for the Court to grant summary judgment. The

Court adopted Lancium's constructions but denied summary judgment. D.I. 230. It has become

clear that Lancium wants the claimed POA to be more than it really is: a fancy name Lancium

chose for a contract that allows a power entity to stop delivery of electricity to a load. Nothing

more. That the load must be using the amount of electricity subject to the stoppage (a MPT) is an

unremarkable, natural consequence of such an arrangement. Storms' disclosure includes this

arrangement. Lancium essentially concedes as much:

> Storms' concept of contracting (and co-locating flexible
> datacenters) with/at windfarms to permit the windfarms to sell
> their power to the flexible datacenters (e.g., Bitcoin miners) when
> the power prices are low and sell their power to the grid when the
> power prices are high

DR at 8.

By Lancium's admission, the generator holds the option to deliver power to Storms'

miners or curtail such delivery in favor of selling to the grid. Lancium's only remaining

argument, then, is that Storms did not disclose "minimum power thresholds" because Storms'

control software included profitability considerations. But the claims do not include limitations

about *why* a generator may choose to curtail delivery, whether for profitability or some other

reason. Storms' control software was logically separated from the remote-controlled PDU. PF 2,

6, 28. This freed the software to be run by whomever controlled the option, be it the generator,

the load, or a third party. D.I. 254; PF 3, 12, 24-25.

Lancium also has not disputed that Storms' PDU received remote commands to turn

miners on or off once every 5-minutes; when on, the miners were required to mine for the entire

duration of the interval, consuming a corresponding minimum amount of power; and the PDU

and miners could not override that requirement. PF 5, 23. Therefore, the miners *must* consume at

least that amount of power during the interval (about ~31kw in one implementation). PF 26, 35,

37. Lancium's software expert, Baer, agreed. PF 16-17. This requirement is no different than the

common-sense scenario that a load be using the amount of power it is contractually receiving

from a windfarm, as explained by the only ERCOT expert at trial, McCamant. Tr. 192:6-11.

IV.   McNamara and Cline did not independently conceive the claimed inventions

After receiving Storms' disclosures, McNamara and Cline could not have independently

conceived the claimed inventions. Because Storms conceived all the elements of the claimed

inventions and communicated those elements to McNamara and Cline, Storms is the inventor.

See, e.g., Price v. Symsek, 988 F.2d 1187, 1190 (Fed. Cir. 1993) (explaining that inventorship is

established by proving "prior conception" and "communication of the conception"). With

Storms' information in mind, McNamara and Cline could not have later independently conceived

the inventions. Lancium adduced little testimony (and no expert opinions) at trial about its

independent invention theory, instead relying on post-trial attorney argument. In making this

argument, Lancium tells a tale of its "initial vision" with phrases like "uplift" and "real-time

signals," for taking "advantage of the highly variable power output of windfarms." DF 3.

Lancium's initial vision, though, until meeting Storms, was just turning miners off when power

prices got too high. As of May 7, 2019, two days before receiving Storms' disclosure, Lancium

was doing that, and only that. TX57.5; Tr. 514:24-515:25.

Lancium's tale continues, arguing that its '632 Application is proof of conception of

"monitored conditions" related to mining profitability such as Bitcoin price. DF 4. But the '632

Application does not once mention mining profitability or Bitcoin price, which Cline admitted on

cross-examination. Tr. 510:6-511:6. Lancium argues independent conception of "monitored

conditions" like hashrate and breakeven values "to determine a performance strategy." DF 5.

Lancium's corroborating documents, though, are just self-described "ideas for dashboard stuff."

TX222. Lancium cites a PowerPoint slide depicting visual items meant for humans to view.

TX223; Tr. 513:5-17. There is no evidence other than Cline's unreliable testimony that these

were monitored conditions, let alone used to determine performance strategies. In fact, Lancium

admits that at this time it had not even started developing its own software. Tr. 480:9-14. These scant documents presumably represent Lancium's best, hand-picked from over one hundred exhibits in stacks of binders placed in front of McNamara and Cline at trial, most of which got little more than a glance, and many got less than that. Tr. 502:1-509:12.

The most significant document, according to Lancium, is an alleged "flash of insight," that occurred nearly four months *after* meeting Storms, which Lancium describes as "the conception date for the 'power option agreement,' 'power option data,' and 'minimum power threshold'" limitations. DF 9. These elements, however, are not novel aspects of the claims but unremarkable components of decades-old contractual arrangements between loads and generators. Cline and McNamara could not "conceive" of these limitations. Indeed, their evidence of "conception" is an email recalling that someone else explained these concepts to Cline. PF 61. *See Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1362 (Fed. Cir. 2004).

V.   McClellan's opinion has always been that the load must use the MPT

Lancium's attacks on McClellan's credibility, citing briefs and testimony outside the trial record, should be given no weight. Lancium continues litigating soundbites over substance. Even in post-trial briefing, Lancium cites fragments of McClellan's deposition, taken out of context. DR at 2, 7, 19. At all times, McClellan's opinion has been that MPT as recited in the '433 Patent claims refers to the amount of power a load must use subject to curtailment by the power entity in the power option agreement. He said it once:

> Q. What specifically is a minimum power threshold?
>
> A. That's the amount of power that you're contracted to consume.

Ex. A, McClellan Dep. 84:18-20.

He said it again:

> Q. What -- is there any specific data that's required to be power option data, or can it be anything?
>
> A. I think at least it has intervals and minimum thresholds. There may be other data that's associated with that, but I think there's thresholds over intervals.
>
> Q. And intervals are intervals of time?
>
> A. Time intervals, yeah.
>
> Q. And what are thresholds?
>
> A. You agree to buy power at that -- you agree to consume that much power at a certain price at that time.

Ex. A, McClellan Dep. 83:21-23.

He said it a third time:

> Q. And -- So we talked about this earlier, bound to consume means you can either use it by running miners or not use it by selling it back, is that right?
>
> A. Well -- Let's look. Claim 1 says wherein -- power consumption target -- you're talking about targets -- for the set of computing systems for each time interval in the set of time intervals wherein each power consumption target is equal to or greater than the minimum power threshold. So the patent doesn't contemplate selling back at all. It talks about consuming that minimum power threshold by those computing devices. I mean, it's -- I just read the claim language there. It says: Minimum power consumption target wherein each target is equal to or greater than the minimum power threshold associated with the time interval.

Ex. A, McClellan Dep. 154:21-155:12.

But Lancium seemed interested in sowing confusion. McClellan explained that any confusion stemmed from his lack of understanding of commercial, real-world ERCOT contracts, not the '433 Patent or the ordinary meaning of its claim terms. McClellan gave answers to the best of his knowledge, but ultimately deferred to McCamant on ERCOT contracts:

> Q. So earlier on I had asked you a question what about the plain and ordinary meaning of minimum power threshold was, and you said it was the power that could either be consumed -- that could

be consumed either by using it or by selling it back. So -- Are you changing the definition?

A. No. I'm saying in the power option agreement, I believe I said it's not clear to me whether the power option agreement mandates that you use the power. That's a question for McCamant. I believe I said that several times. I don't know about the contract -- **there's a contract, and then there's this language in the patent, and I'm trying to draw the distinction between the two**. The contract language may not make you use the power.

Ex. _, McClellan Dep. 155:13-156:2 (emphasis added). At trial, McClellan testified that

deposition quotes Lancium relied upon were being cited out of context, and that other portions of

his deposition testimony would clarify his opinions. Tr. 427:23-428:8.

Lancium relies on soundbites over substance elsewhere as well. For example, pointing to

McClellan testimony about reverse engineering one piece of information in Storms' .csv file

being "fraught with error," but omitting McClellan's testimony that the reverse engineering

would be "pretty assured" and "pretty straightforward." Tr. 374:21-375:7, 397:4-16.[2]

VI.   Storms is at least a joint inventor

Lancium barely disputes that Storms and Lancium collaborated, offering a single

conclusory paragraph in which Lancium knocks down a strawman by arguing Storms'

contribution is not a significant contribution just because the contributed limitations appear "in a

lot of claims." DR at 17. Storms' contribution of the "monitored conditions" for determining a

"performance strategy" to provide "instructions to the set of computing systems" is significant

---

[2] Lancium's selective quotations goes beyond McClellan criticisms. For example, Lancium cites a portion of text message exchange between Storms and Hakes following the Storms and Lancium dinner: "The guys at Lancium are doing what we are trying to do exactly." But Lancium omits a message sent 12 minutes later in that same exchange, in which Storms texts: "Plus [Lancium] want[s] my logic for curtailing miners on [day-ahead] and [real-time market balancing] LMP," and another sent 19 minutes after that, Storms writing: "The thing that's currently setting me apart from everyone else is the fully vertically integrated solution – there are plenty of hardware guys, but none are doing what I am from the software side because they don't know how." DR at 8; TX14.48-49.

because it is the crux of the invention (and therefore appears in all 20 claims). When Cline suggested to McNamara that Lancium obtain a patent (after a meeting McNamara did not even attend), Cline described the patent as covering "ERS, LR, CLR … with the additional constraints of power price arbitrage (sellback) and mining profitability." TX82.1. ERS, LR, and CLR are publicly defined ERCOT load resource designations that have existed since the early 2000s, for forming ancillary services and demand response agreements with ERCOT, in which the load sells ERCOT the option to stop power delivery in exchange for a fee. PF 45-48.

Cline suggested that these known elements be combined with "additional constraints," specifically power price arbitrage and mining profitability. TX82.1. Arbitrage and profitability depend on monitored conditions like real-time power pricing, Bitcoin pricing, hashrate, network difficulty and resulting breakeven values. Tr. 512:1-4. These "constraints" as Cline describes them, are the monitored conditions upon which the claimed performance strategy is determined, which informs the claimed instructions provided to the computing systems. These monitored conditions and performance strategies for instructing miners—Cline's "constraints"—are described verbatim in Storms' disclosure. TX157 (*see, e.g.*, "BTC_price," "real_time_LPM," "est_network_hashrate," "network_diff," "realized_rev," and "real-time breakeven monitoring"); PF 19-22, 34-35. Storms' contribution of these monitored conditions, and the resulting performance strategies, for various power consumption targets and time intervals, represents the "additional constraints" Cline suggested to McNamara in October 2019, five months after Storms' disclosure, were worthy of patenting.

VII.   Conclusion

For at least the reasons stated, the Court should enter judgment naming Storms the sole inventor of the '433 Patent or, in the alternative, naming Storms a joint inventor.

ASHBY & GEDDES

/s/ Andrew C. Mayo
Andrew C. Mayo (#5207)
500 Delaware Avenue, 8th Floor
P.O. Box 1150
Wilmington, DE 19899
(302) 654-1888
amayo@ashbygeddes.com

Of Counsel:

Benjamin T. Horton
John R. Labbe
Raymond R. Ricordati, III
John J. Lucas
Chelsea M. Murray
MARSHALL, GERSTEIN & BORUN LLP
233 S. Wacker Drive
6300 Willis Tower
Chicago, IL 60606
(312) 474-6300
bhorton@marshallip.com
jlabbe@marshallip.com
rricordati@marshallip.com
jlucas@marshallip.com
cmurray@marshallip.com

Date: February 1, 2023

Attorneys for Plaintiffs
BearBox LLC and Austin Storms